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TWO CONTEMPORARY APPROACHES TO THE INDIVIDUATION OF
CONCRETE PARTICULARS: WHY A SUBSTANCE THEORY IS A STRONGER
ACCOUNT

by

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Introduction

As we interact with and observe our environment, we confront a world filled with many different entities.¹ Some of these entities are things like houses, cars, commercial airplanes, oak trees, spiders, dogs, cats and people. Our initial intuitions seem to be that the world comes carved up with things like these concrete particulars.

Upon interacting with these particular kinds of objects, we quickly become aware of another kind of entity. Upon interacting with a particular dog, I notice that it has certain colors such as brownness and whiteness. I also notice upon petting it that it feels a certain way; it is coarse. I notice the dog's making certain sounds and having certain shapes. The particular dog has attributes of white, brown, courage, and being two feet long, etc. Further, I notice that these peculiar kinds of entities such as brownness and whiteness are shared by many different particular objects.

So far in this early analysis I observe a world which includes objects I have been calling concrete particulars, the things like my pet dog Neeko, the oak tree in my back yard, and you, the reader of this paper. In addition, the world includes these others entities: the attributes that are associated with these particulars, the color I associate with Neeko, the color green of the leaves on the Oak tree, and the rationality associated with the person reading this paper.

¹ I am using the word 'entity' in a very general sense here. An entity could be understood as ranging over anything in existence. See Hoffman and Rosenkrantz, "The Independence Criterion of Substance", in Metaphysics Contemporary Readings, Stephen D. Hales (Canada: Wadsworth Publishing Company, 1999), pp. 384-396

One of the interesting things about my discovery of these two entities is that I discover them in some kind of relationship or proximity to one another. In the discussion above I said ‘the color I associate with Neeko’. In that statement I assumed some kind of association between these two entities. The concrete particular I called ‘Neeko’ on the one hand, and a certain color on the other hand. One of the interesting questions that arises is, “Is there a real relation between these two entities?” It may turn out these two entities are completely unrelated. It may just happen to be the case that the color I associate with Neeko arises when I observe this concrete particular such that the color being observed upon the observation of Neeko, has no causal connection with the concrete particular at all. This is an interesting thought but I think our common sense intuitions run deep here, namely that there is some non-arbitrary relationship between the concrete particular and the attributes we associate with them. For the rest of this paper I will look only at options that countenance this relationship as non-arbitrary.

The question then arises, “What is the relationship between a concrete particular and the attributes we associate with it?” A starting point for answering this question might be to see if we have any pre-philosophical intuitions on this matter. What do we think about this relationship at the beginning of the project? I think if we look at how we experience and interact with our world we can point out some common sense intuitions we have about the relation of these two entities. I think we common sensically make the connection that the attributes associated with a concrete particular belong to or are possessed by a particular. To be possessed by something, entails the thing doing the possessing exists logically prior to the thing being possessed. An object cannot be

possessed unless there is an object which possesses it. Our intuition is that the concrete particulars are ontologically primary and at least some of the attributes we associate with them belong to them or are secondary to them.² I am not trying to say anything about how this relationship is *in fact* at this point but only pointing out our intuitions about the relationship prior to any philosophical considerations. It may turn out that our intuitions are not on track here, and the attributes we associate with the concrete particulars are primary in some important way, where as concrete particulars are secondary. In fact many excellent philosophers I will look at in this paper think because of other considerations we should consider attributes as primary and concrete particulars as secondary. These philosophers think there is good reason to think this is in fact how our world is constructed ontologically, contrary to our common sense intuitions. This is about as far as I can go without putting forward a philosophical account of concrete particulars and the attributes associated with them, which I will do shortly.

In section one of the first chapter, I will present an initial account of the nature of concrete particulars called the “substance theory”. In the second section, I will present an account of the nature of concrete particulars called the “bundle theory”. In section three, I will explain how these theories account for the relationship between the attributes and the concrete particulars they are associated with. The first account I will present is the instantiation view and the second the exemplification view.

² Michael Loux, Metaphysics Contemporary Readings (London and New York: Routledge, 2001), p. 95

In section one of the second chapter, I will explain what should be included in an account of individuation. In section two I will explain how these two theories account for the individuation of concrete particulars.

In section one of chapter three I will explain how the problem of individuation arises for the bundle theory. In section two I will explain how this problem arises for the substance view.

In section one of chapter four I will explain how one of the strongest contemporary versions of the bundle theory can account for the problem of individuation. In section two I will show how the substance view can account for the problem.

In chapter five I will make some final observations and draw some conclusions.

Before proceeding to the issue at hand, the following are some of my **methodological assumptions**. First, I take the standard position that all things being equal a theory that posits fewer ontological types of objects in giving an account of some phenomenon is to be preferred over a theory that does not. Call this *ontological simplicity of types*. For instance, a theory that posits both universals and concrete particulars is a theory that has two ontological types of objects as opposed to a theory that only posited concrete particulars. The latter theory would meet condition (1) in a stronger fashion than the former because it posited only one type.

Second, a theory that retains elegance in explanation (all things being equal) is to be preferred to a theory that cannot retain this elegance. Call this *elegance of explanation*. For instance, Newton's theory of Universal Gravitation can explain all three of Kepler's laws. Newton's theory would be said to retain elegance of explanation in a stronger

fashion than Kepler's, because Newton's theory accounts for everything Kepler's does in one law.

Third, I take the position that, all things being equal, a theory that comports more closely with our pre-philosophical intuitions about some phenomenon has support in its favor that a theory that does not comport as strongly to our pre-philosophical intuitions does not. The idea here would be that upon considering two competing theories, if both theories accounted comparably in other areas, the theory that also comports more closely to our pre-philosophical beliefs about the phenomena being explained would have support in its favor the other theory does not. An example here would be from epistemology. If theory A posits that there is mind independent world and theory B denies there is a mind independent world, theory A is to be preferred because it comports more closely to our pre-philosophical intuitions that there is a mind and independent world.³ This is assuming that two competing theories of knowledge can account for all of the other key philosophical issues that arise in giving an account of knowledge.

I

In the first section of this chapter I will give a general account of the substance theory of concrete particulars. In section two I will do the same for the bundle theorist's account of concrete particulars with an eye toward explaining some of the intuitions that motivate these accounts. In section three I will give a brief account for how these positions account for the properties that concrete particulars possess.

³ For the purposes of this paper, I will be assuming something like theory A that there is a mind independent world and further the concrete particulars that I am talking about are mind independent objects not just concepts in the mind.

(i) The substance theorist takes many of those ordinary objects I called concrete particulars to be things called substances, so for now on I will use the words interchangeably unless otherwise noted. Revisiting our perceptual stroll around the world we discover all kinds of objects that in some sense subsist apart from, or at least are not completely dependent on, other objects. Substance theorists think substances are in some sense independent objects; we can call this the independence criterion of substances.⁴ In the *Metaphysics*, Aristotle explains this: “Some things can exist apart, and some cannot, and it is the former that are substances.”⁵ Substances are those things that can subsist in some sense on their own; they are not immediately dependent on any other object.⁶

As we look around our world we observe many different kinds of objects. We do not just observe several instances of the same kind of object. Consider our earlier discussion where we looked around the world and distinguished things like cats, dogs, trees, planes, cars and people. Substance theorists take at least some of these distinct objects to be individual instances of a certain kind of substance. In the case of botanical and biological objects like trees, cats, dogs and humans these would all be distinguished as belonging to different natural kinds.⁷

⁴ Hoffman and Rosenkrantz, “The Independence Criterion of Substance”, in Metaphysics Contemporary Readings, Stephen D. Hales (Canada: Wadsworth Publishing Company, 1999), pp. 384-396

⁵ Aristotle, “Metaphysics”, in A New Aristotle Reader, J. L. Ackrill (Princeton University Press, 1987), 341-345

⁶ This is not to say there is nothing else substances depend on. Spatially extended substances (which will be the kinds of substances I will talk about in this paper) depend on the existence of a world with the possibility of spatial extension logically prior to and coextensive with their existence. We might be able to make a list of necessary conditions for any substance to exist. My point here is that independent substances do not depend on other independent substances for their existence. Certainly some have argued that independent substances depend on an ultimate independent substance like an unmoved mover or God, but I will not take this question up in this discussion.

⁷ There is a robust discussion in the contemporary literature about kinds, See the journal: Ratio, winter (2005): entire journal

One question that may be asked is, “What demarcates one kind from another?” Our common sense intuition is that there is something about what it is to be a cat that is different from what it is to be a dog; there are some qualitative differences between a cat and dog. A standard way substance theorists explain what it is to be a thing of a certain kind is to appeal to certain characteristics that all members of a certain kind have that members of another kind do not.

There are a couple of standard ways substance theorists think we can identify or demarcate different kinds. As we look around our world, we might be able to observe enough cats and find a common set of attributes that all cats possess. This list could be used to demarcate a case of having a cat versus a case of having a dog. Even though a dog may share some of the essential characteristics a cat has, it must possess them all to fall under the kind cat. We could potentially do the same for dogs, and go around the world and make an inventory of the characteristics different kinds possess. The difficulties with actually carrying out a project in this way are well attested; for it seems we would need a very large sample size before we could be very confident about which objects fall under a certain kind and not another.

Other philosophers with strong modal intuitions think we could identify and demarcate objects of a certain kind based on their similarity of attribute and function across possible worlds. This issue, though substantial, goes beyond the scope of this paper, but I will revisit it later as it bears on the discussion about individuation.

We have seen that we stumble across many concrete particulars that are in some sense the same. For instance, we often see multiple dogs. From what we have said, these

dogs are similar in that they belong to the same kind. We also observe particular dogs are different in some sense. Any two dogs that we observe seem to have (at least initially) a few different attributes. The substance theorists will say that two substances of the same kind are identical in virtue of their essential properties but particular differ in their secondary or nonessential properties.

This distinction between essential and nonessential properties also accounts for another intuition substance theorists have about concrete particulars, namely that substances can change in some sense and remain the same. “For in the case of substances it is by themselves changing that they are able to receive contraries. For what has become cold instead of hot, or dark instead of pale, or good instead of bad, has changed (has altered); similarly in other cases too it is by itself undergoing change that each thing is able to receive contraries.”⁸ In this passage, Aristotle explains that it is substances that undergo change, namely, in the attributes that they possess. The same substance can change from being hot to cold, dark to pale. For instance, when I come back from a vacation to Florida, I am darker than I was when I left. Three weeks after the trip I would probably be pale again. Being pale or dark is something I possess contingently; I need not be either. If a contingent attribute of a substance changes, this is a change to the substance and not a change of substance. Some substance X has attributes a, b and c. If X loses c and picks up d (assuming by losing c and picking up d, X did not cease to be X and become Y), X remains the same substance but underwent a change in attribute. For

⁸ Aristotle, “Categories”, in A New Aristotle Reader, J. L. Ackrill (Princeton University Press, 1987), 11

substance theorists, when a substance undergoes a change this is called an accidental change or a change in its nonessential properties.

So far we have focused on four characteristics of the substance view of concrete particulars. First, substances are independent individuals. Second, at least some belong to certain kinds. Third substances have essential and nonessential properties. Fourth, substances undergo change and remain in some sense the same substance. Much more could be said but I will build on what has been said in looking at some further issues.

(ii) In our pre-philosophical discussion about concrete particulars, we were able to pick out these particulars due to some means. I think the common sense idea is that in some sense these objects are all accessible to the senses. Both the bundle theorist and substance theorist agree. All the objects mentioned above we could see; most of them we could touch (i.e. we have tactile access to them) and some of them we could smell or hear. The idea here would be that what we know of these objects (at least initially) is just what we can access through the senses. It seems when we are referring to Spike the dog we describe him according to his sense perceptible attributes. This is one of the central intuitions the bundle theorist is going to use in developing their theory of concrete particulars. Whatever else we say about concrete particulars, included in the account will be the sense perceptible attributes associated with them.

Now the bundle theorist also has the intuition that what we have access to by way of the senses has a privileged position compared to other ways we might come to know things. In asking ourselves how we might know what kinds of things exist, we have to give an account of how we know what we claim exists. For the bundle theorists, what we

can know through the senses gives us our best shot at knowing what might exist. When asking the question about the ontological nature of concrete particulars the bundle theorist thinks we should account for their nature according to what we have access to via their sense perceptible features. Now the interesting thing is the substance theorist would fully agree with this idea. However, these two theorists will disagree about how this empiricist intuition gets fleshed out.

In giving an account of concrete particulars, the bundle theorist reasons that since it is through the senses that we have access to these concrete particulars, and what we have access to of these concrete particulars via the senses are the sense perceptible attributes of the concrete particulars, it seems reasonable to conclude that a concrete particular just is its sense perceptible attributes. This is a stronger claim than the substance theorist will make.

For the bundle theorist we might observe certain color properties associated with some concrete particular, for instance brownness and greenness. We might observe certain shapes associated with a concrete particular such as being cylindrical and triangular. We might take notice of the object's size such as being twenty feet tall. All this might go into a description of the common sense object we call a particular tree.

Up to this point in explaining the bundle theory, I have not said these are properties a concrete particular possesses, but are the properties it is associated with. I make this distinction because in saying which properties we associate with a concrete particular I have left open the question of exactly what the relation between the concrete particular is and the attributes associated with it. If I would say the relation between the

properties a concrete particular is associated with is one of possession this would seem to be giving ontological primacy to the concrete particular such that the properties could be construed as ontologically secondary to the concrete particular. The bundle theorist will reject an account that says the concrete particular is primary and the properties secondary. The bundle theorist thinks that if anything the concrete particular is secondary and the properties that make up a concrete particular are primary.⁹ So in giving an account of a concrete particular the bundle theorist is going to say the properties one observes associated with a certain concrete particular exhausts an ontological account of what a concrete particular is. A concrete particular is just the bundle of properties associated with it. So an initial account of the bundle theory would be a *concrete particular*, *x*, is its bundle of properties.

(iii) In this section, I will show how a realist about the properties that concrete particulars possess accounts for the attributes associated with concrete particulars. Next, I will briefly explain the “instantiation” version of realism. Finally, I will briefly explain the “inherence” version.

Recently, I bought my wife a dozen roses. When my wife and I observed the roses, each appeared to have the same color, red. It seemed to us, that even though each rose had slightly different shades and tones of color, each shared, to some degree, what appeared to be the same color. This is the intuition that those who are realist about properties hold, namely that we are seeing the same property red in each case.

⁹ There are different ways bundle theorists might explain how properties make up the concrete particular, for instance they may compose it or be compresent with it.

In answering how we are to explain the phenomenon of what seems to be the same color's showing up at multiple locations in many different objects, the realist says that what we are observing is the exact same property in each case. There are two general strategies among realist in explaining how concrete particulars are related to the attributes with which they are associates, the inherence view and the instantiation view.

The instantiation version of realism proposes that the redness under consideration is instantiated by a spatial-temporal object. It is important to note that according to this version of realism the property is not in the particular; rather, it is in a relation of being instantiated by a particular. For most instantiation theorists, this relation is irreducible to any other. Later, I will say more as to exactly what being instantiated is. For the instantiation realist these universals (some of which are the properties instantiated by concrete particulars) are primary in our ontology and do not depend on the existence of concrete particulars. These universals would exist if there where no concrete particulars or never had been any concrete particulars in which they were instantiated.

What is important for this discussion is to see that the ontology of the bundle theory develops in the way it does because of its theory of existence (existents). Universals are the primary existents in this ontology and everything else that exists is ontologically posterior to and dependent on the primary existent universals.

The second version holds that universals inhere in concrete particulars. If there were no red objects, either now or in the past, then there would be no red universals because there are no subjects in which the universal red inheres. Thus, the answer as to what accounts for the redness in a concrete particular is that the concrete particular itself

has redness. The properties are in a relation of dependence on the concrete particulars they inhere in. Any independence the redness may have would be in considering it as conceptually distinct from the subject. It should be noted that this is not constructivism (conceptualism), because the fact that the concrete particular is red is not a construction of the mind that is independent of some state of affairs in the world. The important point for our discussion is that the attributes that a concrete particular possesses on the inherence view are in some sense secondary and belong to the concrete particular.

II

In this chapter, I will briefly explain what an account of the individuation of concrete particulars should include. Next, I will explain an initial account of how the substance theorist explains the individuation of concrete particulars. Finally, I will explain how the bundle theorist accounts for the individuation of concrete particulars.

(i) Having an initial understanding of what a concrete particular is, we can ask what an account of the individuation of concrete particulars should include. Generally, the word ‘individual has the connotation of singularity. So we might say giving an account of the individuation of concrete particulars should include giving an account of their singular existence. An individual concrete particular is a singular or single object and not many considered at the same time in the same relationship.¹⁰ Giving an account of concrete particulars will include an account of exactly what it is that makes a concrete

¹⁰ In this discussion I am not dealing with the problem of identity across time or the problem of identity at a time.

particular the very individual it is and not another.¹¹ The question I will be answering is, what is it that makes one object the very same object as itself and not another, considered in any possible world. To put it another way, when we have a case of a individual, what is it about the individual that distinguishes it from any other concrete particular? Any sufficient account of individuation will have to address these questions.

(ii) The Neo-Aristotelian approach would say that concrete particulars have a formal principle and a material principle.¹² The formal principle would be included in the explanation of why the concrete particular has the structure it does. The material principle of a concrete particular would be the matter or stuff from which a concrete particular is composed and gives it a metric in space.

The formal principle can be seen as the cause or principle that gives a particular cat a cat-like structure instead of a dog like structure. The cat possesses a structural principle that forms it as it develops. It is important to say on this theory that the concrete particular cat is a cat from its origin (there is no time it exists that it is not a cat) in virtue of its having the form cat. The question is what exactly is this formal principle; what kind of causal efficacy does it have? Proponents of this theory will usually say each concrete particular has an individual form of a certain kind. So though there are many

¹¹ Related to the issue of individuation is the question of composition. I will treat this issue only as it bears on the question of the individuation of concrete particulars, which I take to be a different question from that of compositionality of objects.

¹² For the purpose of this paper I will not delve into the history or debates about interpretations of Aristotle. What I will present here is at least one plausible reading of an Aristotelian approach to the individuation of concrete particulars.

cats, each particular cat has its own form of catness.¹³ This will raise problems that I will look at later.

Now this particular cat that we have been talking about possesses its own material stuff that materially composes it. We could go through and inventory all of the atoms that compose this cat and we would possess the stuff that composes the cat.¹⁴ Usually for this tradition matter *qua* matter has no formal principle; it is a primitive aspect of substances. You have no matter without an in-formed object and no matter just exist independent of an in-formed object.

For the tradition I am presenting here both matter and form have been proposed as what can account for the individuation of concrete particulars. Later, I will show how these two approaches work and some problems for them. What I will be arguing for in this paper is a position that says individuation is primitive.¹⁵ The world just comes carved up as concrete particulars. I will say much more on this position later.¹⁶

¹³ There are different accounts as to what and where one should look for this structural principle. At least one account would say the information contained in the DNA is where we could locate the formal or structural principle of at least biologically based concrete particulars.

¹⁴ An initial difficulty this move has is that the atoms themselves are not merely matter, but also contain a kind of form or structural principle themselves. One could begin the process of finding even more primitive stuff that composes the atoms (and hence the cat) like the quarks, muons gluons etc. One could come up with a list of the most basic components physicists tell us exist and one might have an inventory of the material stuff that composes a concrete particular. The question would then arise, wouldn't even these primitive components have some minimal formal principle. So the age old question comes up do even the most basic building blocks themselves have some formal principle such that form is primitive and matter derivative, or are the basic building blocks something like Leibnitz monads, or simples that everything else is composed of?

¹⁵ For some contemporary representatives of this approach see: Michael Loux, Metaphysics A Contemporary Introduction (London: Routledge, 2001) pp. 96-138
EJ Lowe "Individuation" in The Oxford Handbook of Metaphysics, Michael J. Loux and Dean W. Zimmerman (Oxford and New York: Oxford University Press, 2003), pp. 75-95

¹⁶ There are certainly many other accounts of individuation that could be mentioned that would go beyond the scope of this paper. One other worth mentioning that I will refer to later will be the Haecceities view, see: Plantinga, The Nature of Necessity (Oxford: Clarendon Press, 1974) pp. 81 – 87. To see an account of this position see JA Cover and J O'Leary Hawthorne, Substance and Individuation in Leibniz, (Cambridge: Cambridge University Press, 1999)

(iii) An initial account of the individuation of concrete particulars on the bundle theory would be explained something like this. The bundle theorist said a concrete particular is a bundle of properties. There are different ways bundle theorists explain this bundle of properties. The view I will develop here will be what I take from the literature to be the most popular approach, namely, an account that says a concrete particular is a bundle of co-instantiated properties. Remembering what we talked about earlier in our discussion of the instantiation view of properties, to say a property is instantiated is to say that in some sense a certain property is associated with something. The primary axiom of the bundle theory is:

(BT) Necessarily, for every particular x and every entity y , y constitutes x if and only if y is a universal and x instantiates y .

On this view what individuates one concrete particular from another is that there are different of bundles of instantiated universals. What distinguishes one concrete particular cat from another (or any other concrete particular) is just that this concrete particular instantiates these properties and that concrete particular instantiates those properties. So where there is the occurrence of the instantiation of the properties, say brown, three feet tall, round, etc., there is located the particular that instantiates these properties. What individuates this concrete particular cat is that it instantiates this unique

As I mentioned before we are not considering either the bare particular view due to our desire to stick with theories that don't seem to require an appeal to an entity inaccessible to the senses, or the trope view due to or consideration of theories that countenance some kind of realism about the nature of properties.

association of properties and no other concrete particular is associated with all and only these properties.¹⁷

III

In section one I will explain what is generally thought by contemporary metaphysicians to be the most difficult problem for the bundle theorist who is a realist about properties, namely, the problem of individuation. In section two, I will explain how problems of individuation arise for the substance theorist.

(i) Metaphysicians ask questions about what exists. The question we are dealing with arises upon our experience of these peculiar objects that I have called ‘concrete particulars’ and trying to explain what kinds of existents they are and how they subsist. As I mentioned earlier, it seems we experience these things as individuals. Metaphysicians want a rigorous account of the criteria of individuation of these objects. Then pushing the question further still, does the account given stand up to scrutiny? Upon looking at what the bundle theorist says that a concrete particular is and how it is individuated, many metaphysicians have recognized a serious problem with the account of individuation given by bundle theorists.¹⁸ Here is how the problem arises on the assumption of

(BT) Necessarily for any particular x and any entity y , y constitutes x if and only if y is a universal and x instantiates y .

¹⁷ For a contemporary presentations of the instantiation view see: Gonzalo Rodriguez-Pereyra, “The Bundle Theory is compatible with Distinct but Indiscernible Particulars” *Analysis* January (2004): pp. 72 - 81

¹⁸ James VanCleve “Three Versions of Bundle Theory”, *Metaphysics Contemporary Readings*, Michael J. Loux, (London: Routledge, 2001) pp. 121-133

What constitutes concrete particulars is instantiated universals. Again, the bundle theorist tells us that instantiated universals exhaust the basic ontological objects that come into an account of concrete particulars. From this another principle follows on the bundle theory. If all that constitutes concrete particulars are bundles of instantiated universals and instantiated universals are multiply locatable, then the same bundles are multiply locatable. Since multiple instantiations of the same universals are identical, then multiple instantiations of the same bundles of instantiated universals are also identical. If the instantiation of the same bundle are the identically same in each instance, and all that constitutes concrete particulars are bundles of instantiated universals, then concrete particulars that have the same bundle of instantiated universals would be identical. We can call this the principle of constituent identity.

(PCI) Necessarily, for all complex objects x and y and every entity z, if z is a constituent of x if and only if z is a constituent of y, then x is numerically identical with y.¹⁹

From the bundle theory and the principle of constituent identity follows another principle. We know from the bundle theory that concrete particulars are *constituted* only by the universals they instantiate. We know from PCI multiple concrete particulars with the same bundle are identical. Now if it turned out that there was no way to discern whether a distinct concrete particular possessed at least one different instantiated universal than another concrete particular, it seems we would have to say the two are identical. If we have no means of determining a difference in concrete particulars *qua*

¹⁹ Michael Loux, Metaphysics, A Contemporary Introduction, (London: Routledge, 2002) pp. 113

their bundle of instantiated universals we have no other means to individuate them and hence they would be identical. We can call this the principle of the identity of indiscernibles.

(PII) Necessarily, for all particulars x and y and every universal z , if z is instantiated by x if and only if z is instantiated by y , then x is numerically identical with y .²⁰

Now the bundle theorist is committed to PII. In his influential article “The Identity of Indiscernibles” Max Black uses a thought experiment to show that there is at least one possible world where there can be distinct but indiscernible concrete particulars.²¹ If Black’s argument is successful it shows that PII is false and that the bundle theory is false.

What is taken as a datum in the argument by all parties is that there are in fact distinct concrete particulars. The argument works as follows. Black sets up a world in which it is logically possible that there are two distinct but indiscernible concrete particulars. He asks us to imagine two balls that as far as can be discerned have the exact same shape, size, color, texture etc. We can call the balls a and b . a is red, three inches in diameter, round and hard. b is red, three inches in diameter, round and hard. We have a world where a and b exhaust the objects in this world and they have indiscernible properties. At least initially the bundle theorist seems to be committed to the idea that a and b have the very same indiscernible properties and since there is nothing else in virtue of which they may be individuated they must be identical. Not so fast says the bundle

²⁰ Michael Loux, Metaphysics, A Contemporary Introduction, (London: Routledge, 2002) pp. 112

²¹ Max Black “The Identity of Indiscernibles”, in Contemporary Introduction to Metaphysics, Micheal Loux, (London: Routledge, 2001) pp. 104-113

theorist, there may be other properties a and b possess that can account for their individuation.

There may be an appeal to properties that each concrete particular possesses (like being identical with themselves) that the other does not. a has the property of being identical to a and only a has this property which could individuate a from b (which did not have the property of being identical with a). A second kind of property that may be appealed to is that a is not b . So a has the property of not being b , which b does not have, and b has the property of not being a , which a does not have.

Black shows this kind of move to be problematic because it turns out statements like a is identical to a , and b has the property of not being identical to a are tautologies. They tell us nothing about how to individuate distinct concrete particulars; they just tell us what must be true of any distinct concrete particulars a-priori to the problem of providing some means to actually individuating concrete particulars.

An appeal might be made to the spatial location a has that b does not have. If each ball occupies a different place then difference in place can be appealed to as individuating concrete particulars. The problem with this move is, it seems that appealing to the space that balls occupy presupposes the balls existence and the balls being at that space. Again this seems like a tautology, it will be true if there are any spheres that they will be in a space, particularly the space they occupy.

An appeal might be made to other relational properties concrete particulars possess that may account for individuation. If it could be shown that a and b did not share certain relational properties they may be individuated in virtue of these differences. For

instance, an appeal might be made to the fact that *a* has the property of being to the left of *b*, which *b* does not have, and *b* has the property of being to the right of *a*, which *a* does not have. Here is a case of *a* having a property that *b* does not have, and visa versa.

This kind of move seems to require a third perspective in virtue of which there is a frame of reference which indexes *a* to the left of *b*, and *b* to the right of *a*. In and of themselves, *a* has the property of being to the right, as does *b*. Also, *a* has the property of being on the left, as does *b*. It is not until there is some observer from whose perspective one is on the left and one is on the right that these relational properties arise. But the world was assumed to consist of only the two ball and no observer to index relational properties to *a* and *b*.

Other spatial relations may be appealed to like *a* being two miles from *b*, and *b* being two miles from *a*. On this account it seems *a* has the property of being two miles from *b* and no distance from itself, and *b* does not have the properties of being two miles from *b* and no distance from *a*. *b* cannot be two miles from itself nor can *b* be at the very same place as *a* and visa versa. In addition, it seems both *a* and *b* have the property of being two miles apart from each other. The same problem, however, arises here as in the previous example since being able to index the property of being two miles from *a*, to ball *b*, and the property of being two miles from *b*, to *a*, presupposes the picking out of and individuating of balls prior to this indexing of properties.

All these appeals seem to make a similar error, they appeal to what Loux calls impure properties. Properties like being identical with, being different than, occupying a different space than, being a certain distance from, are impure properties and assume a

third object which fixes these properties to one object or another, but this fixing is not intrinsic to the balls themselves. We can reformulate the bundle theory as follows.

(BT*) Necessarily, for any concrete entity, a, if for any entity b, b is a constituent of a, then b is a pure property/attribute.²²

Black is getting at the question, What must an account of individuation deliver that is true in any possible world where there are concrete particulars? So the problem remains; something must individuate different objects. It seems if we don't want to give up the intuition that there really are distinct individuals, (in the Black world) with indiscernible properties then there is something else that concrete particulars possess or a principle appealed to besides the properties that it instantiates.²³ However, the bundle theorist cannot make this move since the only ontological objects he has to appeal to are instantiated universals.

To summarize this objection, Black's argument works as follows:

- (a) Necessarily $PII \rightarrow PII$ is true in all possible worlds
- (b) PII is not true in all possible worlds
- (c) Therefore not necessarily PII

(a) follows on an understanding of modal ontology. A proposition is necessary if it is true in all possible worlds. If the principle of the identity of indiscernibles is a necessary truth, as the bundle theory takes it to be, then it is true in all possible worlds. What Black's argument shows is that there is at least one possible world where the principle of

²² Michael Loux, *Contemporary Introduction to Metaphysics* (London: Routledge, 2002) pp. 116

²³ An appeal may be made to certain un-discernable properties or aspects that may serve to individuate concrete particulars here. This is precisely what the bare particular theory does and nicely address the Black problem.

the identity of indiscernibles is false. This is what premise (b) states. (c) follows on modus tollens. We can now see how the argument against the bundle theorist works :

- (1) BT \rightarrow necessarily PCI
- (2) necessarily PCI \rightarrow necessarily PII
- (3) BT \rightarrow necessarily PII
- (4) not necessarily PII
- (5) therefore not BT.

Premise (1) has been shown from the discussion above, namely, that in every possible world where the bundle theory (as I have developed it) is true, PCI is true. Premise (2) is established on the truth that PII follows on PCI, and PII is true in all possible worlds. (3) follows from (1) and (2). The negation of PII has been shown from the Black argument; there is at least one possible world where PII is not true. (5) Follows according to modus tollens.

(ii) At this point I will revisit how the substance theorist explained the individuation of substances. Again, as with the bundle theorist the substance theorist needs to give us a rigorous account of what it is that makes an object one and the same object and not another according to what the substance theorist has told us about the nature of substances (A theory must pass the coherence test: if it gives us an account of the nature of some object and then proceeds to explain a problem giving us details that are not consistent with what it has already told us, it fails to be coherent).

The substance theorist says that concrete particulars have a formal aspect and a material aspect. So we might look to one of these to give us an account of individuation.

Both of these principles or some combination of them has been proposed as what individuates concrete particulars. At least one argument has been put forward for the material principle accounting for the individuation of concrete particulars. Harkening back to the Black type world with two objects with indiscernible properties, could it not be the case that each concrete particular has its own matter that the other does not possess. For instance, each object, say two human beings, might each have certain matter which has its own metric.²⁴ The metric one human has will be different than the metric another has even though they still may possess indiscernible properties in common, or even the same kind of matter. We would say one human had this metric and the other had that metric. It seems this point is backed up by the intuition that the very same matter cannot possess different metrics at the same time.

What we are wanting to know is exactly what is it that makes each object one and we are told that it might be matter that ultimately accounts for this oneness. A problem arises because matter has no intrinsic unity. If we say that the matter is all that accounts for this oneness it may turn out that matter could also individuate a potentially infinite number of objects of the same kind or of a different kind. “The very same matter that composes the sphere could instead compose a number of different spheres, or an object of non-spherical shape or even be scattered haphazardly across the universe”.²⁵ The idea here seems to be that there is nothing intrinsic to matter *qua* matter that would circumscribe one bit of matter from another bit of matter. Matter itself does not come as

²⁴ I take it that for an object to have a metric is for an object to have extension in space and or time.

²⁵ E.J. Lowe “Individuation” in Oxford Handbook of Metaphysics, Michael J. Loux and Dean W. Zimmerman (Oxford: Oxford University Press, 2003) pp 81

this individuated bit of matter and that individuated bit of matter without something else besides the matter *qua* matter giving it some boundary of limit.

It seems we need to look for some other principle than matter to account for the individuation of concrete particulars. We could look to the formal principle to account for this. If it turns out an actual concrete particular has some matter and it is not anything about the matter *per se* that gives it its intrinsic metric we could look to the structuring principle of matter. You never have a chunk of matter without having a chunk of matter of a certain kind or of certain determinate shape, size or structure. This size, shape and structure are formal properties. Hence it is the forms that give matter its metric. So we could posit the idea that form individuates concrete particulars. In the case of natural kinds we would say a concrete particular's form is what individuates it. One has this form(s) and the other has that form(s). In the case of a concrete particular such as the spherical ball we might say it is an unnatural kind but nonetheless belongs to the kind ball and it is in virtue of its ball-form that it is individuated.

This approach will not work in that it will run into a similar problem as the bundle theory. If in the case of human beings it is only the form that individuates each human, then (assuming each case of being a member of the natural kind human is to have the same form of human being in each case) there is no basis of individuating one human being from another, since what is looked to is each form and the forms are the same.

Now there are those in the history of Aristotelian scholarship, including contemporary metaphysicians, who would nuance appeals to matter or form (including approaches that countenance appeal to en-mattered form, see Bobick's book on

Aquinas's approach "On Being and Essence") to account for individuation, but it may turn out that the problem with either of these approaches was a kind of conceptual analysis that some Aristotelians would shy away from. In fact they would say this kind of conceptual analysis is what gets the bundle and substratum theorist into trouble in the first place, namely, when they try and look for the principle of individuation in some more primitive aspect of the concrete particular.

Remember on the substance view the existence of actual form and actual matter is ontologically co-present and not prior to the existence of an actual concrete particular. There is no form or universal that actually exists in the abstract in addition to the concrete particular (as though you could think of a form, such as the blackness of someone's hair, subsisting in a concrete particular and then leaving that object intact and having an independent existence and then later possibly moving into another concrete particular). Also there is no matter as a distinct thing other than the concrete particular.

It turns out that there is a more difficult objection for a Neo-Aristotelian account. Broackes quotes J. L. Mackie's objection to the substance view.

[1] We may say that the thing here, the cat, has each of the properties...So [2] it seems that the thing itself must be distinct from each of its properties, and therefore from all of its properties together: it must be something other than the properties, something in which they all inhere, and to which they all belong....[3] We cannot conceive how properties can subsist alone: they need something to subsist in....[4] What we thus need to supplement all the properties is the

substratum which must therefore be something which considered purely in itself has no properties and is not constituted by any combination of properties.²⁶

At first glance the Aristotelian might think this is an argument against the so called substratum (bare particular) view, but Mackie takes this as an argument against an Aristotelian substance theory. In his 2006 article “Substance” Justin Broackes explains exactly how this argument is suppose to work. He presents it as follows;

- “(1) The cat *has* various properties (e.g. the shape, size, color etc...’)
- (2) The ‘thing itself’ is ‘distinct from’ and ‘other than’ those properties; something ‘in which they inhere’;
- (3) Qualities cannot subsist without a subject.
- (4) Hence the subject of the properties is something that ‘in itself has no properties’.”²⁷

Broackes thinks the argument works as follows. Premise (1) seems uncontroversial and any Aristotelian would accept it. It seems in some sense concrete particulars have properties. Premise (2) seems to follow on the Aristotelian distinction between primary and secondary substances. The thing itself, (the concrete particular) is in some sense distinct from its properties and the properties inhere in the particular as I have already shown. The Aristotelian argues that properties do not exist independent of something possessing properties; there is always something which has properties. This seems to be a plausible reading of (3). Now if the thing itself is in some sense distinct from its properties, we can make a legitimate distinction between the subject of the

²⁶ Justin Broakes “Substance” *Proceeding of the Aristotelian Society*, winter (2006) pp. 135

²⁷ Ibid. pp. 145

properties and the properties themselves. Also since there must be a subject for there to even be any properties, then it seems there must be a subject that the particulars are predicated of which is in some sense ontologically prior to the properties. It would follow that, the subject itself cannot include its properties in a consideration of primary subject, and it seems the properties are ontologically posterior to the subject; this is what (4) tells us. But then what is it to have a property-less subject? It seems you are left with nothing at all. So the idea here is that the Aristotelian view is pushed into a bare particular framework and suffers the same fate as the bare particular view. Later I will see how the Aristotelian may respond.

IV.

In section one I will present one of the strongest defenses of the bundle theory against the charge that they cannot give an account of the possibility that there might be two distinct but indiscernible concrete particulars. I will then explain why I think this response is problematic. In section two I will present an approach that the substance theorist can take to avoid the criticisms leveled against her position.

(i) The problem arose for the bundle theory on the assumption of bundle theory and premise II. It seemed that the kind of thing a concrete particular is on the bundle theory (an instantiated bundle of universals) and the fact that PII is not a necessary truth entail a serious problem for the bundle theory in the Black type worlds. If, concrete particular, x, is constituted by instantiated universals a, b and c, and concrete particular y

is constituted by instantiated universal a, b and c then x and y are identical in the Leibniz Law sense.

At this point we need to further nuance exactly how the problem arises and to do this we need to revisit exactly what the instantiation of a universal by a particular is.

Rodriguez-Pereyra says that "...[concrete particulars] are entirely constituted by the universals they instantiate. But this does not mean that particulars are bundles of universals."²⁸ He then goes on to ask, if particulars are not bundles of instantiated universals, then what exactly are they? His answer is interesting, "When a bundle is in a place, there is also another entity there, namely an instance of the bundle. The instance is entirely constituted by the universals of the bundle. But the instance and the bundle are two distinct entities."²⁹ So he draws a distinction between an instance of a bundle and what constitutes that instance. So it seems the instance includes the bundle but is not exhausted by it. The particular (P) itself is to be identified as an instance (I) of a certain bundle of instantiated universals (B) though B is in some sense distinct from I.

(BT*) For any P, it is an I of some B where B composes I but I is distinct from B.

Rodriguez-Pereyra also says, "Unlike the bundle itself, an instance of a bundle cannot be in more than one place at once."³⁰ So an instance of a bundle of instantiated universals has a circumscribed metric in space, whereas the bundle does not. So it seems that the same bundles can be located at different places via instances, whereas the instances are not multiply locatable. This idea seems to entail a denial of PCI since this

²⁸ Gonzalo Rodriguez- Pereyra "The Bundle is Compatible with Distinct but Indiscernible Particulars" *Analysis*, vol. 64 January (2004) pp 77-78

²⁹ Ibid pp 78

³⁰ Ibid pp 78

model provides an example of bundles being constituted by the same instantiated universals, but these particulars are not the identically same particulars. This would also entail a denial of PII since there may be cases of indiscernible but not identical concrete particulars.

Rodriguez-Pereyra thinks the bundle theory* can then handle the Black type world problems. On this account there can be distinct particulars, namely, there can be distinct instances of instantiated universals. Also these particulars would be constituted by the same bundle and be indiscernible from each other because they have the same bundle of instantiated universals. Recall that according to premise (1) from the argument against the bundle theory, bundle theory necessarily entails the principle of constituent identity. Rodriguez-Pereyra has given us an argument to show that bundle theory does not entail principle of constituent identity because there may be a possible world where distinct concrete particulars may be constituted by the exact same bundle of instantiated universals yet not be identical concrete particulars. Since the other premises follow on the truth of this premise, the argument against the bundle theorist fails.

There are a couple things that are unclear to me about this approach. First, does it stay true to the intuitions that originally informed the bundle theory? Remember one of the things the bundle theorist was concerned about was maintaining an element of simplicity in regard to the number of ontological entities posited in an account of concrete particulars. For the bundle theorist this was done by saying there is only one kind of ontological entity posited in the account, namely, the properties explained in terms of universals that compose the concrete particular. The particular was not

something over and above, existing as juxtaposed to or other than its bundle of universals. But it seems that Rodriguez-Pereyra's explanation could be read as making the particular something distinct from what its constituents are, namely, the bundle of instantiated universals that compose it. There seem to be two units of analysis, the instance, and its bundle universals. It seems as though he is treating these as two aspects of particulars: the instance on one side and its instantiated universals on the other. The instance has at least one feature, namely, being at only one place at the same time, that the bundle does not. It seems the instances are not identical to the bundle. If it turns out this is the case and there are two ontological units, the instance and its instantiated universals, it looks like this account of the bundle theory would have the benefit of being closer to our *prima facie* beliefs about the nature of concrete particulars namely, that there are two levels of ontology: (i) Particulars which correspond to the instance and (ii) the universals which correspond to the properties. If this is the case the bundle theory would lose one of those methodological elements we thought was a one of its benefits, namely, its ontological simplicity compared to the substance view.

If Gonzales says there is no real ontological distinction, just a nominal distinction (a difference in naming the particular by reference to it as an instance or as a bundle of instantiated universals) then it seems there is no real ontological distinction between this bundle of instantiated universals and its instance, the two are synonymous.³¹ This would entail a particular is an instance of a bundle of instantiated universals. We can see Rodriguez-Pereyra use of instance does not add anything ontologically over and

³¹ I don't think he is doing anything like this based on what he says in the text, I mention this paragraph to thwart the idea that one may respond in this way

above the bundle of instantiated universals, that might contribute to an account of an instance of a particular being distinct from its constituents (bundle of instantiated universals). Rodriguez- Pereyra is borrowing ontological capitol that he does not have.

(ii) To revisit the Mackie problem which seems to squeeze the Aristotelian position into a substratum view with all its attendant problems, I will argue that Mackie gives a misreading of what most contemporary Aristotelians would give on premise (3). I will follow an argument Justin Broackes makes in the article “Substance” I referred to above.

Broackes shows how the premise can be read in at least two ways, one accurately representing an Aristotelian reading and the other not. On Mackie’s reading he seems to be allowing for more than just a distinction between subject and predicate, but this can be read as an ontological *separation* between them. “Troublesomely, it says that where qualities are found, there exists another subject that ‘possesses’ those qualities—a further item, other than Tibbles (the cat), deeper and more fundamental.”³² The idea seems to be that we can put the properties to one side and the subject of these properties to another side. But this putting to one side and the other is acknowledging a separation of entities such that one is ontologically separate from the other. The subject or substratum counts as one separate level and the properties another.

This reading seems to clearly do damage to an important Aristotelian intuition. “Tibbles has properties (as all agree); and he is distinct from his properties, in the sense that he is not identical with any or all of them. (For example—as we shall see more fully

³² Ibid pp. 146.

later—Tibbles was born, and weighs 4 kilos; but that does not imply that Tibbles and his properties are *separable*, in the sense that each could be *detached* from the other (leaving the subject without properties, and the properties without a subject).”³³ The illustration here helps in seeing that we would not think of Tibbles as the combination of two other existing things, namely some bare particular and the properties that are instantiated in the bare particular. Of course upon the coming into existence of Tibbles the Aristotelian thinks there is one thing that comes into existence with certain attributes that belong to that existent, namely there is Tibbles, the existent concrete particular, and his properties. Upon the birth of Tibbles, his properties come into existence. Also he could not come into existence without his properties; what would it be for there to be Tibbles’s properties without Tibbles, the one whose properties they are? More strangely what would it be for a bare subject with no properties to exist? It would just be nothing at all.

This issue gets to the heart of what the Aristotelian thinks is a seriously flawed methodology that both the bundle theorist and the substratum theorist take. The flawed thinking seems to be that upon the possibility of conceptually distinguishing a subject from its properties that might entail you could in fact ontologically separate a subject from their properties. The substance theorist thinks the bundle theorist imposes a kind of scientific methodology one might find in physics (completely explaining a macro object in virtue of its most primitive parts, its quarks, muons, gluons etc.) onto a philosophical methodology. The Aristotelian would argue that this approach is appropriate for physicist giving an account of a kind of reality (physical reality), but this is not

³³ Ibid pp. 147

appropriate for the metaphysician. This is a mereological framework wrongly imposed on an account of particulars that does serious damage to how we seem to actually interact with and experience concrete particulars. The metaphysician's object is not quite the same as that of the physicist, though one is relevant to the other.

The Aristotelian is resistant to mereological reduction unlike his bundle and substratum theorist counterparts. In fact it will turn out the Aristotelian's want to say the individuation of concrete particulars is an un-analyzable starting point in a discussion of concrete particulars. The world just comes carved up with concrete particulars. However, it will turn out that this appeal to an un-analyzable starting point should not be a problem for the substance theorist. It seems many, if not most ontological accounts of concrete particulars, will have to at some point in their explanation posit an existent that is self individuating. E.J. Lowe says, "Certainly it seems that any satisfactory ontology will have to include self-individuating elements, the only question being which entities have that status – space time points, bare particulars, tropes, and individual substances all being among the possible candidates."³⁴ The Aristotelian is locating this self individuation with the concrete particulars themselves while the bundle theorist locates it with the universal (but nonetheless there is a self individuated entity in the bundle theory account).

The question is which entities are we warranted in locating this self individuation? The Aristotelian thinks trying to locate self individuation in some more primitive entity than the concrete particular leads to intractable problems; namely the one I presented

³⁴ E.J. Lowe, "Individuation" in The Oxford Handbook of Metaphysics, Michael J. Loux and Dean W. Zimmerman (Oxford: Oxford University Press, 2003) pp 93

above. Since there are no good ontological arguments to move us away from what we thought initially, (that the world comes carved up as unified wholes of concrete particulars) we should accept these self-individuated concrete particulars as primary in our ontology of existents.

Much more could be said by way of philosophical criticism and support for each of these positions, but I think here I presented at least a few arguments that represent what contemporary metaphysicians are looking at in regard to these issues. The bundle theorist needed to give us an account that does not multiply the number of ontological objects in her ontology, which is what made the view attractive in the first place. To the degree and extent I have got Rodriguez-Pereyra's project right, I don't think he has done that. With the Aristotelian view I have presented some concerns and I think in presenting how the Aristotelian addresses these concerns I have gotten to the heart of the way the Aristotelian approaches concrete particulars. But it seems to me the question as to which of these positions offers a stronger account may not be entirely settled by strict ontological considerations. Even though I think the Aristotelian account can handle the philosophical problems that arise in a stronger fashion than the bundle theorist, I think it would take a lot more argument than I have given to show this definitively. Even if a definitive ontological case can be made in favor of the substance theory, the bundle theorist still might have concerns with the substance approach for other reasons.

I think we need to look further at the methodological differences between these two approaches to really see the differences between the two positions. It may turn out

the real differences comes down to certain epistemological intuitions about what kinds of entities our cognitive faculties can access.

V.

In this section I will revisit some of the methodological issues and draw some initial conclusions. The bundle theory accounts for simplicity in a stronger fashion than the substance theory, specifically in regard to what I called simplicity in ontological type. The bundle theory posits only one kind of ontological object, namely, the universals that compose a concrete particular. The substance theorist thought that even though the properties that concrete particulars possess belong to the substance, they still make up an ontological level of object themselves. The question is should we posit both particulars and universals? And of course the substance theorist thought we should because there is reason to think this is how the world is carved up ontologically.

As far as elegance of explanation the substance theorist gets the nod here. The substance theorist's account comports quite closely to our *prima facie* beliefs about concrete particulars and the attributes associated with them. The substance theory can account for both of these phenomena in one unified explanation (in a similar way, Newton's theory accounted for three phenomena associated with questions of gravitation in a unified explanation). The bundle theorist on the other hand seems to disjoint the two phenomena in their explanation. According to the bundle theorist, we are to see the picture about concrete particulars and the attributes associated with them in a much

different light than we initially did. We seem to lose the phenomena we wanted explained on the bundle theory and there are several steps in the explanation which detracts from its elegance.

It is in regard to the final methodological point I think the substance theorist has a distinct advantage, namely, all things being equal a theory that comports more closely with our pre-philosophical beliefs about concrete particulars has support in its favor that a theory that does not comport as closely to our pre-philosophical beliefs does not have.

For this discussion, I will call our pre-philosophical beliefs our *prima-facie* beliefs. To help see this let me make a distinction between two kinds of belief that have historically been countenanced by epistemologist, namely, *prima facie* belief and *ultima facie* belief. *Prima facie* is what we believe about some item (say a proposition P) initially, based on our initial observation or consideration. We might call this the common sense view on the subject. *Ultima facie* belief is belief that has more rigorous grounds for a belief. To believe something *ultima facie* is to have some grounds, arguments or warrants for the belief such that you believe it with a high degree of confidence. Now what we want is *ultima facie* belief because it has something *prima facie* belief does not, namely, more developed grounds or warrant. If it turns out on comparison of two propositions, say P and Q, they both have an equivalent grounding such that we are in a position of indeterminacy in regard to which gets the nod *ultima facie*, it seems to me if one of these propositions comports more closely to our *prima facie* beliefs, this fact would provide some warrant in its favor that the other proposition does not have. So if neither P nor Q has an edge in regard to what might warrant *ultima*

facie belief about these two, since P comported more closely to our prima facie beliefs we would have reason to go with belief in P over Q.

Applied to our discussion, I want to argue that even if it turns out neither substance theory nor the bundle theory offer grounds that push us to ultima facie belief in favor of one or the other, the substance theory as I have shown comports more closely to our prima facie beliefs about concrete particulars and in virtue of this has reason in its favor the bundle theory does not.

If for explanatory reasons we need more objects in our ontology, then we posit them. But when our prima facie beliefs include belief in particulars and the attributes associated with them, which seems to imply a two-story ontology, one has to show this state of affairs is not the case to warrant belief in a different picture. It seems all parties agree based on the dialectical starting point of this discussion that there is a presumption toward our prima facie beliefs at least at the start of the discussion, and the default positions are those that are close to these beliefs. The burden of proof is on theories that tell us the picture is quite different from that of our starting beliefs. I don't know that the bundle theorist has given us good enough ontological reasons for this move. It seems we can nicely explain the nature of particulars and their attributes by positing exactly what we initially think there are both attributes and particulars as ontological objects. It may turn out there are further reasons why the bundle theorist thinks we should not posit objects other than the properties we observe. I would be open to see these.

The bundle theorist tells us that what we have access to are the attributes of particulars. They wonder what this so called substance is. Is it something over and above

the properties or is it something not accessible to the senses? If it is not accessible to the senses, then how can we have any idea what or that it is? It seems to the bundle theorist that substance theorists infer the substance from its attributes. But why make this inference when epistemic humility may be in order. Only posit what is observed. Now by and large the substance theorist of an Aristotelian stripe agrees with the bundle theorist. What would a substance be if it was some inexplicable object not accessible to the senses? But the Aristotelian is not saying anything like this. She is saying that we do observe the substance; it just is the concrete particular itself not some mysterious stuff hidden from the senses. Nor is it an inference. And certainly when we observe the attributes a concrete particular possess, we are just coming to learn about the substance itself revealed by the attributes it possesses. The substance is not some apophatic entity, but a revealed knowable entity precisely because we can observe it, see its relations, test it, touch it, see how it behaves, and the like. In doing this we come to learn about the substance. Quite possibly one of the concerns the bundle theorist has from an epistemic stand point is really a non issue if you consider the particular not as some strange stuff but as a revealed entity.

Conclusion

As I have shown, philosophers have explained the nature of objects such as cats, dogs, humans, trees and bats in many different ways. I proceeded to explain in chapter one how two theories, namely the substance and bundle theories explain the nature of concrete particulars. In chapter two, I explained how these theories account for the individuation of concrete particulars. In chapter three, I explained how the problem of

individuation arose for each of these theories. In chapter four, I explained how these theories can account for the problem.

The Rodriguez-Pereyra argument showed that even though the bundle theory is committed to the idea that concrete particulars are composed by their instantiated universals, this does not entail principle of constituent identity, which in turn does not entail premise II and hence the Black type problems are not fatal to the instantiation view of the bundle theory. I showed that in making this move Rodriguez-Pereyra's account either multiplies the number of entities given in an account of concrete particulars, which undermines the bundle theorist initial intuitions that only universals were needed in an account of concrete particulars. This in turn undermines one of the strengths of the bundle theory, namely, ontological simplicity. Or Rodriguez-Pereyra's account suffers from a confusion of exactly how his use of 'instance' adds any explanatory strength (other than just being a useful synonym) over the original account. I then showed that the problem of individuation arose for the substance view by a wrongly imposed mereological framework that most substance theorists reject.

I concluded by looking at some of the strengths each theory had in regard to the methodology I laid out in the introduction. I have shown that the substance theory can explain the problem of individuation in a stronger fashion than one of the strongest recent versions of the bundle theory. Finally, I showed that the substance view has some support in its favor (which metaphysicians usually do not consider) that the *bundle* theory does not and from what I have considered in this paper is the theory of concrete particulars that should be preferred.